

IN THE CLAIMS:

1. (cancelled).
2. (currently amended) The ~~chelator particle~~ slurry of claim 1 ~~14~~, wherein the chelating particle comprises a metal oxide abrasive, iron oxide, a doped metal oxide, a metal nitride particle, a metal oxynitride particle, a metallic particle, a metal alloy particle, an organometallic particle, a polymer particle, a buckeyball, a buckeybowl, a carbon nanotube, a carbon black particle, activated carbon, a charcoal particle, a diamond particle, montmorillonite, an inorganically- and/or organically- modified clay, or a combination thereof.
3. (currently amended) The ~~chelator particle~~ slurry of claim 1 ~~14~~, wherein the chelating particle has a net negative zeta potential ~~at least~~ before attachment.
4. (currently amended) The ~~chelator particle~~ slurry of claim 3, wherein the net negative zeta potential remains negative even after attachment of the plurality of chelator compounds.
5. (currently amended) The ~~chelator particle~~ slurry of claim 1 ~~14~~, wherein the chelating particle has an average particle size from about 1 nm to about 4000 nm.
6. (currently amended) The ~~chelator particle~~ slurry of claim 1 ~~14~~, wherein the plurality of chelator compounds attached to the chelating particle possess functional groups comprising hydroxyls, carboxylic acids, amines, amides, imines, imides, mercaptans, sulfonic acids, hydroxamic acids, carbonyl groups, esters, ethers, ureas, cyano groups, nitro groups, phosphonic acids, phosphonates, carbonates, inorganic salts thereof, or a combination thereof, and wherein at least a portion of the functional groups are no further than about 7Å from another functional group.
7. (currently amended) The ~~chelator particle~~ slurry of claim 1 ~~14~~, wherein each chelator compound, before being attached to the chelating particle, possesses at least three functional groups comprising hydroxyls, carboxylic acids, amines, amides, imines, imides, mercaptans, sulfonic acids, hydroxamic acids, carbonyl groups, esters, ethers, ureas, cyano groups, nitro groups, phosphonic acids, phosphonates, carbonates, inorganic salts thereof, or a combinations thereof.

8. (currently amended) The ~~chelator particle~~ slurry of claim ~~1~~ 14, wherein the plurality of chelator compounds comprises one or more of the following oligomeric and/or (co)polymeric chelators: poly(styrene sulfonic acid), poly(vinyl sulfonic acid), poly(acrylic acid), poly(methacrylic acid), a poly(acrylate), a poly(methacrylate), a poly(alkacrylate), poly(maleic acid), poly(vinyl acetate), poly(vinyl alcohol), poly(acrylamide), poly(cyanoacrylate), a cellulosic material, or a mixture or copolymer thereof.

9. (currently amended) The ~~chelator particle~~ slurry of claim ~~1~~ 14, wherein the plurality of chelator compounds does not comprise poly(styrene sulfonic acid), poly(vinyl sulfonic acid), poly(acrylic acid), poly(methacrylic acid), a poly(acrylate), a poly(methacrylate), a poly(alkacrylate), poly(maleic acid), poly(vinyl acetate), poly(vinyl alcohol), or a mixture or copolymer thereof.

10. (currently amended) The ~~chelator particle~~ slurry of claim ~~1~~ 14, wherein ~~the majority of~~ the chelator compounds are attached to the chelating particle, optionally being attached to a the spacer and the spacer being attached to the particle, by a covalent chemical bond.

11. (currently amended) The ~~chelator particle~~ slurry of claim ~~1~~ 10, wherein the chelating compounds are attached to a optional spacer is present and , said spacer being disposed between the chelating particle and the chelating compounds, wherein said spacer comprises at least about 10 carbon atom linkages.

12. (currently amended) The ~~chelator particle~~ slurry of claim 11, wherein the spacer is oligomeric or (co)polymeric and comprises a polysiloxane; a polyolefin; a polyacrylate; a polyalkacrylate; a polycarbonate; a perfluorinated polymer; a halogenated polymer; a polyimide; a polyimine; a conjugated (co)polymer; a polyketone; a polyether; a polyurethane; a polylactide; or a copolymer or combination thereof.

13. (cancelled)

14. (currently amended) A polishing, etching, and/or residue removing slurry comprising:
a polishing accelerator;
a diluent;
optionally an abrasive material; and

a plurality of chelating particles of ~~claim 1~~ that are insoluble in the diluent, said chelating particles comprising a particle and a plurality of chelator compounds attached to the surface thereof.

15. A chemical mechanical polishing slurry comprising:

an oxidizer;

a diluent;

optionally an abrasive material; and

a plurality of chelating particles of ~~claim 13~~ that are insoluble in water and comprise: a particle body and an oligomer and/or (co)polymer having a plurality of pendant functional groups attached thereto,

said functional groups comprising hydroxyls, carboxylic acids, amines, amides, imines, imides, mercaptans, sulfonic acids, hydroxamic acids, carbonyl groups, esters, ethers, ureas, cyano groups, nitro groups, phosphonic acids, phosphonates, carbonates, inorganic salts thereof, or a combination thereof,

wherein at least a portion of the functional groups are no further than about 7 Å from another functional group, and

wherein the pendant functional groups are present at the surface of the particle when the particle is present in a solution containing water.

16-21. (cancelled).

22. (New) The slurry of claim 15, wherein the functional groups on the oligomer and/or (co)polymer attached to the particle comprise at least three sulfonic acid groups, and the oligomer and/or (co)polymer is attached the particle by a covalent chemical bond.